BUSINESS CONTINGENCY PLAN - Y2K

HUMAN RESOURCES SYSTEM (HRS)

PREPARED BY

LAUSD Information Technology Division

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POLICY AND STRATEGY

POLICY

The Disaster Recovery and Business Contingency plan:

1. Ensure an organized and effective response to an isolated disaster that would render the Human Resources System inaccessible or inoperative; and

2. Ensure continuity for the Human Resource until normal processing capability is restored.

STRATEGY

The strategy of the Disaster Recovery and Business Continuity Plan is as follows:

1. Ensure that all relevant computer software and databases are duplicated and stored in a secure off-site location for use in recovery.
2. Provide alternate processing guidelines to support essential business functions during a computer disaster recovery period.
3. Publish an organized plan that can be used as a reference should disaster actually occur.
4. Identify responsibility to restore processing in the event of a loss.
5. Provide for plan maintenance for system changes.

EMERGENCY RESPONSE

Emergency Response identifies required tasks and responsibilities that: 1) must be addressed at the time a specific disaster occurs; or 2) are needed to establish temporary processing capabilities at another location. It contains actions assigned to specific individuals as well as Emergency Response Team that may perform individually or collectively during the Emergency Response Period, at the discretion of the Director, Information Technology Division.

RESPONSIBILITY	ACTION
1. Director, Information Technology Division	Determine if the Disaster Recovery and Business Continuity Plan will be activated.
2. Data Center Operations Manager	Initiate any reconstruction that might be required at a temporary data processing location.
3. Data Center Operations Manager	Document a chronological list of all key events surrounding the disaster emergency response actions and interim processing activities.

4.	Data Center Operations Manager	Expedite installation of new telephone/ communications systems as required.
5.	Deputy Director, ITD	Coordinate efforts between the computer and User communities until normal processing capability is restored.
6.	Deputy Director, ITD	Contact personnel on the Emergency Response Notification List (Appendix), as appropriate.
7.	Deputy Director, ITD	Refer to Minimum Office Requirements (Appendix) in the event it is necessary to set up temporary work locations.

SYSTEM PROFILE-HUMAN RESOURCES SYSTEM

SYSTEM NAME: **HUMAN RESOURCES SYSTEM**

SYSTEM DESCRIPTION:

The Human Resources System (HRS) is an online software application that is used to support location-based management of personnel processing, reporting and expenditure control.

The Personnel Management System of HRS executes user-defined personnel actions and approvals; captures and displays personal and demographic information; and automatically builds a complete job and salary history; all of which are available online. The system also produces numerous standard management reports and inquiries.

The various Personnel Offices are responsible for entering employee personal and approved assignment data to construct an employee job history and to insure proper salary payments.

KEY REPORTS:

Report Number	Description
HRS1199D and HRS1930D	BATCH MTI TRANSACTION PROCESSING STATISTICS
HRS1130D	STATISTICS OF PTRS INTERFACE
HRS22310D	JOB RECORD SHEET & JOB TICKET
	The above four (4) reports are generated daily. Provides information related to the number of transactions created, reported and accepted by HRS and interfaced to PTRS.
HMBSUSRP	SUSE TRANSACTIONS NOT CLEARED REPORT
	Weekly report of transactions that remain uncleared in the Suspense File that is over two (2) weeks old.
HCBNPAS1	NPA SUMMARY
	Notifies Schools and offices of changes made to employee records, which may or may not affect time reporting.
NPA	NOTICE OF PERSONNEL ACTION
	Notify various functional offices of changes made to employee records related to schedule and step changes, address and assignment changes.

ONLINE INQUIRY CAPABILITY

The system provides online capabilities in the following personnel activities:

- Executes user-defined personnel actions and approvals.
- Captures and displays personal demographic information.
- Automatically builds a complete job and salary history.
- Produces numerous standard management reports and inquires.

APPLICATIONS DEPENDENT ON OUTPUT FROM THIS SYSTEM:

Payroll System
Payroll Time Reporting System (IFS)

DATA SHEET

System Name: **Human Resources System**

Computer:

Hardware: IBM 9672

Operating System: OS 390

Personnel:

Application Support: Marion Liberotti, Richard Overturf, Raul Reyes
Sar Sithan, Armando Chavez

Primary User:
- Certificated personnel
- Classified Personnel
- Child Development Personnel
- Adult Personnel
- Youth Service Personnel
- JTPA Personnel
- Payroll Branch

Normal Processing Frequency: Daily

Special Forms:

INTERIM PROCESSING STRATEGY

Interim Processing Strategies summarize what will be done to ensure that vital business functions continue, in the event of a disruption in standard data processing capability.

Following is the Interim Processing Strategy applicable to this system:

- Use manual processing procedures.

INTERIM PROCESSING GUIDELINES

Interim Processing Guidelines highlight activities to be address in support of Interim Processing Strategies. Following are the Interim Processing Guidelines for this system.

A. Start Up

The following steps should be taken in anticipation of implementing Interim Processing Guidelines.

- Assure backup of key data files.
- Print a hard copy of the P-102 Report for each personnel office

B. Interim Processing

The following processes need to be performed to maintain accurate personnel data on LAUSD employees in the event of a disaster or interruption of normal business processing:

- **HRS, IFS, PTRS and PAYROLL Down**

  User must maintain tickler file of all documents that need to be entered into HRS once systems are brought up.

- **HRS and IFS Down**

  User will need to complete a File Update Input Card. Batch File Update Input Cards, address cards and deduction cards and send to Data Control for keying to Payroll File Update and PERSNAD.

  ITD will need to maintain an image of these transactions to allow for input to HRS once the systems become available. A hard copy of the P-102 report will be delivered to the appropriate personnel units to verify that their transactions posted to Payroll.

- **HRS and Payroll Down**

User must maintain tickler file of all documents that need to be entered into HRS once systems are brought up.

- **IFS Down**

  User will need to complete a File Update Input Card, Batch File Update Input Cards, address cards, and deduction cards and send to Data Control for keying to Payroll File Update and PERSNAD.

ITD will need to maintain an image of these transactions to allow for input to HRS once the system becomes available. A hard copy of the P-102 report will be delivered to the appropriate personnel units to verify that their transactions posted to Payroll.

C. Restoration of Computerized Data

In the event HRS problems are encountered, Raul Reyes will be contacted to resolve the problems and reload data with back up dates if needed. Once the system is up and running, any new transactions that are processed via payroll will be entered, and operations will resume as normal.

Records of the following business transactions should be retained so that data files can be updated when normal computer processing is restored:

- File Input Update Cards
- Batch File Update Input Cards
- Address Cards
- Deduction Cards

CONTINGENCY PLANNING STEPS

The following charts, Contingency Plan Execution and Contingency Plan Coordination, shows the steps to be taken if the following Y2K events occur.

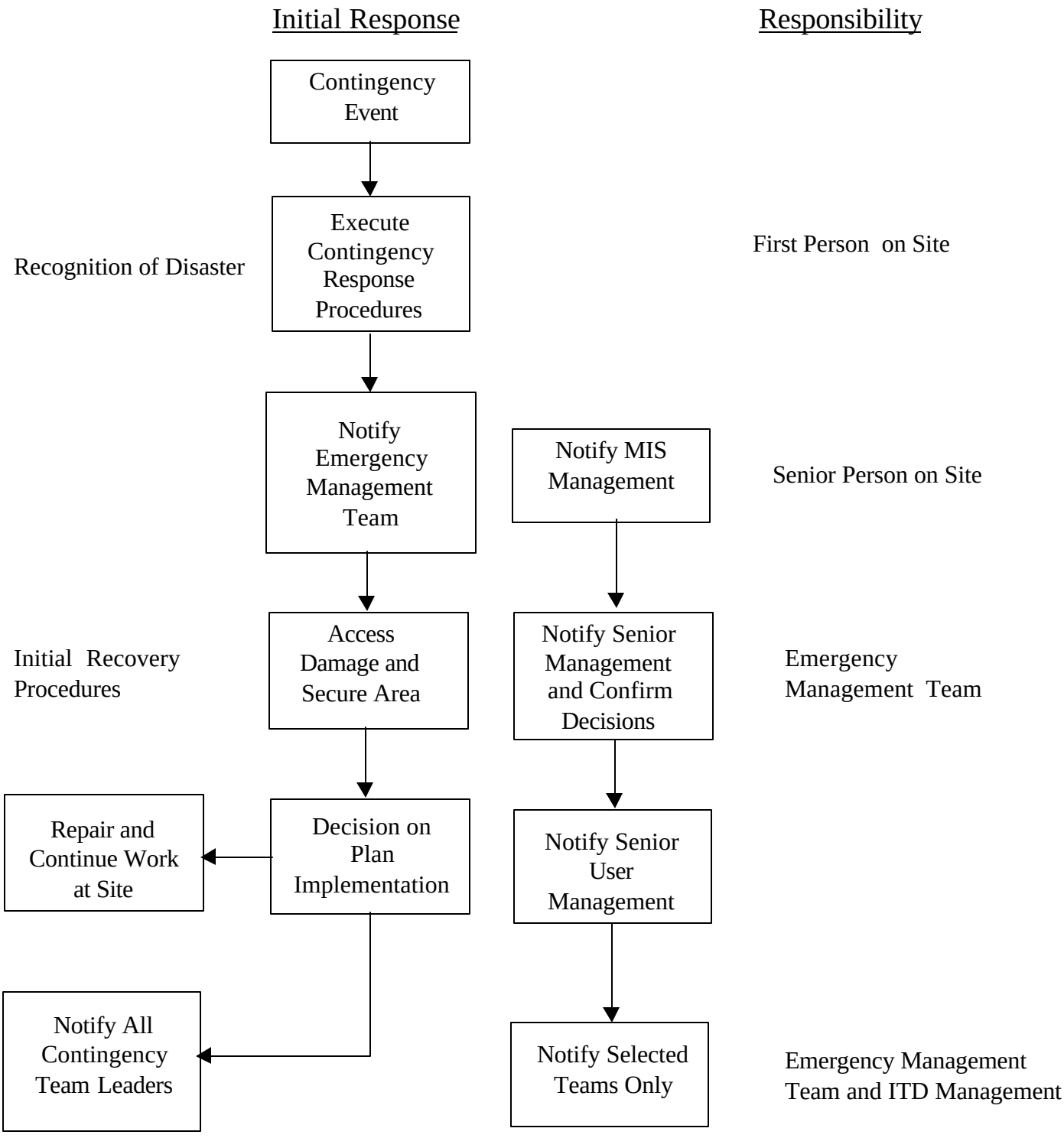
1. Loss of Power
2. Lost of Environmental controls
3. Breaches of security
4. Interruptions of internal/external communications

Steps necessary for the following disruptions in the normal flow of data and activities will not necessarily be the same since the severity of the disruption would not be the same as the above events.

5. Systems hang-up or shutdown
6. Degradation of performance
7. Irrational data presented to users
8. Produces results with incorrect, but acceptable errors
9. Files corrupted or "lost"
10. Unreliable / unpredictable results
11. Y2K repair / replacement incomplete

Items 5 through 11 require coordination between the Data Center, Programming Staff, and Application Specialist for resolution.

CONTINGENCY PLAN EXECUTION



CONTINGENCY PLAN COORDINATION

Within six hours of event

- Notify Backup site
- Notify Key personnel
- Notify intermediate user management in priority order
- Establish administrative support
- Start movement of supplies

Within 12 hours of event

- Assemble backup media and listings at backup site
- Assemble sufficient supplies and equipment at backup site

Within 24 hours of event

- Restore system pack and test system
- Start operations of critical systems
- Bring up full operating system
- Load Master files
- Test and debug system
- Have all critical processes operational
- Establish processing schedule
- Notify all concerned users
- Reassess damage

Recovery Procedures in Parallel

- Have all resources in place at backup site
- Bring up and test programs at data center
- Load data collected during contingency period
- Resume backup and off-site storage procedures
- Complete salvage efforts (if necessary)
- Debrief staff
- Report to management

APPENDIX

RECOVERY TEAMS

- Emergency Management Team
- Data Center Operations Team
- Communications Team
- Data Entry and Control Team
- Database/Systems Software Team
- Production Validation Team
- Internal Audit

Emergency (Contingency) Management Team

- Responsibilities

  - Approve the objectives, scope, and assumptions upon which the Business Continuity Plan is based.
  - Direct support of the contingency planning process by all functional areas of the organization.
  - Audit the initial contingency plan and later test the workability and the costs associated with the contingency plan.
  - Assure that the conversion to the backup operation is under sufficient audit control to provide reliability and consistency to the accounting records.
  - Assure that the necessary supervision and controls are in place during the utilization of the contingency plan.
  - Activate the Business Continuity Program (Contingency Plan) in the event of a disaster.

- Team Leader

Name: Ennis Davis
Director of Information Systems

Office Phone: _____

Home Phone: _____

Alternate Phone: _____

Pager/Cell Phone: _____

Emergency Management Team - continued

- Team Members

Name: Julio Rodriguez Director of Systems and Programming Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____
Name: Richard Overturf, Deputy Director Systems and Programming Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____
Name: Linda Ji-Lung Chen, Deputy Director Systems and Programming Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____
Name: Patty Lewis, Administrator Applications Systems Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____

Emergency Management Team – continued

- Contingency Functions
  - Activate the Contingency Plan
  - Perform an internal audit in the following areas:
    - ⊗ See that the necessary controls have been imbedded in the system for preparing routine daily backup media.
    - ⊗ Determine which areas require data input, computer media, and recent output files.
    - ⊗ Run audit tests on the first backup runs shortly after they have been produced.
    - ⊗ Perform a detailed audit review of the critical accounting files after the first backup cycle has been completed.
- Preplanning Required:
  - Establishing a strong control environment in the ITD services activities.
  - Work with Systems and Programming to identify control points in the business systems and to design and document the controls.
  - Arrange for sufficient routine collection of control information so that there is a clear trail to the point of need and comparable information gathered on the backup systems.

Data Center Operations Team

- Team Members

Name:	Robert F. Armendariz, Director Data Processing Operations
Office Phone:	
Home Phone:	
Alternate Phone:	
Pager/Cell Phone:	
Name:	Louis Carlos Cortez, DP Operations Supervisor, Shift A
Office Phone:	
Home Phone:	
Alternate Phone:	
Pager/Cell Phone:	
Name:	Robert Miyata, DP Operations Supervisor, Shift B
Office Phone:	
Home Phone:	
Alternate Phone:	
Pager/Cell Phone:	
Name:	Sara L. Van Dorn, DP Operations Supervisor, Shift C
Office Phone:	
Home Phone:	
Alternate Phone:	
Pager/Cell Phone:	

Data Center Operations Team – continued

- Responsibilities
  - Assure that the data center is secure.
  - Assure that occupants have been instructed and trained in emergency procedures.
  - Assure that all employees wear badges.
  - Assure that the procedure library contains all the job control necessary to execute job streams.
  - Assure that there is a formal scheduling system.
  - Assure that the following are backed-up daily and rotated offsite: Procedure Library, Tape Librarian, and Job Scheduling.

Communications Team

- Team Members

Name:	Marion Liberotti, Application Specialists Systems and Programming
Office Phone:	
Home Phone:	
Alternate Phone:	
Pager/Cell Phone:	
Name:	Pat Hinojosa Computer Applications Specialists
Office Phone:	
Home Phone:	
Alternate Phone:	
Pager/Cell Phone:	
Name:	Marie Monges Computer Applications Specialists
Office Phone:	
Home Phone:	
Alternate Phone:	
Pager/Cell Phone:	

- Responsibilities
  - Assure that the on-line system have proper recovery procedures if the system goes down.
  - Make sure that the updating of master files are restricted to certain operations or terminals
  - Prioritized on-line input so that critical input can be entered while the contingency plan is operational.

Data Entry and Control Team

- Team Members

Name:	Gloria S. B. Brenklin Data Entry Supervisor, Shift A
	Office Phone: Home Phone: Alternate Phone: Pager/Cell Phone:
Name:	Ruben Reyes, DP Operations Supervisor, Shift A
	Office Phone: Home Phone: Alternate Phone: Pager/Cell Phone:
Name:	Amado Hernandez Data Control Supervisor, Shift A
	Office Phone: Home Phone: Alternate Phone: Pager/Cell Phone:
Name:	Anthony Riola DP Operations, Shift B
	Office Phone: Home Phone: Alternate Phone: Pager/Cell Phone:

Data Entry and Control Team – Continued

Name: Marcos Aranda Zamora DP Operations, Shift B Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____
Name: Paula Yvonne West Data Control Supervisor, Shift B Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____
Name: Daniel Mendoza DP Operations Supervisor, Shift C Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____
Name: _____ Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____

Data Entry and Control Team – continued

- Responsibilities
  - Establish Data Input and Preparation services to meet the processing requirements for input.
  - Establish the Data Control functions for all necessary systems.
  - Assure that Input documents are maintained.
  - Generate necessary reports for all data processing for the aforementioned period.
  - Make sure that instructional procedures are available for data entry processes.

Database/System Software Team

- Team Members

Name: Vicki Frederick, Director System Software & Security Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____
Name: Pearlie King Database Specialist Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____
Name: David Khalieque Operating System Specialist Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____
Name: Untung Sutrissno Operating System Specialist Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____

Database/System Software Team – continued

Name: Kim Tran System Science Specialist Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____
Name: Leo Tam Systems Standards Manager Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____

Database/System Software Team – continued

- Responsibilities
  - Assure that the application software is backed-up and stored offsite.
  - Make sure that there will be complete audit trails.
  - Assure that all critical files are backed-up.
  - Assure that the system has adequate controls, such as, batch totals, hash totals, run totals, and dollar amounts.
  - Assure that a list is available of al systems with the person responsible.
  - Identify the back-up person.
  - Make sure that operation run manuals are available on site.
  - Assure that standards require all programs to include proper controls and totals for complete auditing, and for detection of correction of errors.

Production Validation Team

- Responsibilities
  - Run test scenarios against production system – (must be done over a two-day period for through testing).
    - Testing screen functionality
    - Screen access
    - Create transactions online using test person
    - Validate offline processes
    - Validate that results are the same as pre-disaster results
  - Discrepancy resolution
    - Write up discrepancies with supporting documentation
    - Make corrections or modifications to system to clear discrepancies
    - Retest and validate that problem has been resolved.

- Team Leader

Name: Marion Liberotti
Acting Application Specialists

Office Phone: _____

Home Phone: _____

Alternate Phone: _____

Pager/Cell Phone: _____

- Team Members

Name: Raul Reyes, Senior Systems and Programming Analyst, Systems and Programming Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____
Name: Armando Chavez, Assistant Systems & Programming Analyst, Systems and Programming Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____
Name: Pat Hinojosa,, Data Reporting System Trainer Computer Applications Support Unit Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____
Name: Marie Monges, Computer Applications Assistant Computer Applications Support Unit Office Phone: _____ Home Phone: _____ Alternate Phone: _____ Pager/Cell Phone: _____

Production Validation Team – continued

- Contingency Functions
  - Run Acceptance Test Scripts against production system
  - Refer to responsibilities above.
- Preplanning Required:
  - Determine site to be utilized for testing of script.
  - Review Acceptance Testing scripts to decide which sections and scenarios can or should be tested over a two-day period.
  - Define which test scenarios will be run on day 1 and which on day 2.
  - Provide Discrepancy forms to document problems

Internal Audit Team

- Team Members

Name: Robert Green
EDP, Senior Auditor

Office Phone: _____
Home Phone: _____
Alternate Phone: _____
Pager/Cell Phone: _____

- Responsibilities
  - Assure that proper controls are established
  - Assure that all personnel have been advised about the confidentiality of all information that they work with.

Business Continuity Worksheets

DATA CENTER DISASTER RECOVERY PLAN

(THE FOLLOWING WORKSHEETS ARE COVERED BY THE DATA CENTER PLAN)

- BACKUP STRATEGY WORKSHEET FOR SMALL SYSTEMS
- TAPE BACKUP WORKSHEET
- OFF-SITE STORAGE REQUIREMENTS WORKSHEET
- TEMPORARY / ROTATING STORAGE
- USER RECOVERY CENTER REQUIREMENTS CHECKLIST
- RESOURCE REQUIREMENTS WORKSHEET
- RECORDS REQUIREMENTS
- SUPPLY AND LOGISTICS
- RECORDS RETENTION WORKSHEET
- DEPARTMENTAL NOTIFICATION DIRECTORY
- RESOURCE REQUIREMENTS WORKSHEET
- IMPACT ANALYSIS WORKSHEET
- CRITICALITY ASSESSMENT LIST
- DISASTER PREVENTION WORKSHEET
- NOTIFICATION DIRECTORY
- HARDWARE INVENTROY
- SOFTWARE INVENTORY
- RECORDS INVENTORY
- SUPPLIES/MARTERIALS INVENTORY
- USER REQUIREMENTS
- PROCEDURAL DOCUMENTATION
- RECOVERY PRIORITY AND PROCEDURE
- CHANGE MANAGEMENT FORMS

GLOSSARY

ITEM	DESCRIPTION
Applications	A defined and named set of computer programs and data processed electronically in support of one or more business processes.
Application Controls	Methods of ensuring that only complete, accurate and valid data are entered and updated in a computer system; that processing accomplishes the correct task; that processing results meet expectations; and that data are maintained.
Application Software	Computer readable code directing the actual input, processing, and output activities for users.
Audit Trail	In computer systems, a step-by-step history of a transaction, especially a transaction with security sensitivity. Includes source documents, electronic logs, and a record of accesses to restricted files.
Auxiliary Storage	Data storage other than main memory, such as that on a disk storage unit.
Backup	A method of protecting vital records that schedules the copying or duplicating of vital records for the purpose of protection. The primary purpose of providing backup data for contingency operations is for application/systems restoration. Contingency backups are further protected by offsite storage.
Batch Processing	A method of processing data in chunks (batches). Information and instructions are put into the computer for handling as a single unit.

Business as Usual	Operating under normal conditions, i.e., without any significant interruptions of operations as a result of a disaster.
Business Continuity Plan	The advance planning and preparation that are necessary to minimize loss and ensure continuity of critical business functions of an organization in the event of business disruptions.
Business Function	The most elementary activities, e.g., calculating gross pay; updating job descriptions; matching invoices to receiving reports.
Business Impact Analysis	A study to estimate the effect that a specific disaster/incident might have on a given operation or activity.
Checklist Tests	A method used to test a completed continuity plan. This test is used to determine if information pertinent to the business process is accurate and current.
Cold Site	A backup computer site without computer hardware. All environmental components, such as power, air condition, and data communications are installed. Theoretically, a computer cold site could be operational within a few hours or days following delivery of hardware.
Critical Application	An application or system so critical to a business process that the loss of the application or system would disable a critical business function.
Critical Business Function	A business function so essential to the organization that the loss of the function would result in a loss or depletion of assets of the corporation.
Critical IT Function	An IT function critical to a business process that the loss of the function would disable a critical business function.

Critical Need	The minimal procedures and equipment required to continue operations should a department, main facility, computer center, business process, or a combination of these become inaccessible.
Critical Time Frame	**Computer Application System:** The time between the point of interruption and the point at which an application system must be updated to current status (see maximum allowable downtime).
Critical Time Frame	**Business Function:** The time between the point of interruption and the point at which the business function must have critical services operating at the minimum acceptable level.
Critical Time Periods	Description of special considerations for critical processing periods and special requirements for restoration schedules.
Declaration Fee	A one-time charge paid to a computer backup hot-site (or cold-site) provider at the time a disaster is officially declared.
Disaster	An incident of such severity and magnitude that emergency steps are needed to stay in business.
Disaster Recovery Cycle	Consists of: (1) Normal Operations – the period of time before a disaster occurs, (2) Emergency Response – the hours immediately following a disaster, (3) Interim Processing – the period of time from the occurrence of a disaster until temporary operations are restored, and (4) Restoration – returning to normal.
Emergency Management Team	Lead or managerial personnel from key support organizations responsible for formulating organizational emergency response plans and managing emergency response activities.
Function	Business Function

Hardware Platform	A category of Information Technology resources (hardware platforms) on which critical application processing occurs.
Hot Site	A backup computer site with compatible hardware installed.
Interim Processing Guidelines	A program that outlines how specific activities will be performed until normal processing capability is restored.
Interim Processing Period	The period of time between the occurrence of a disaster and the time when normal operations are restored.
Interim Processing Strategies	A conceptual summary of Interim Processing guidelines applying to a particular business function.
Magnetic Media	A tape or disk coated with magnetic material on which data is stored.
Maximum Allowance Downtime	The longest duration of time for which a computer application could be unavailable, yet, from which an acceptable and successful recovery process could be completed. The MAD is the outage period of an application beyond which business management could not afford to see outage continue, with all financial and operational factors considered.
Mobile Site	Either a hot-site or cold-site on wheels; usually one or more large trailers.
Notification List	A list of key individuals to be contacted, usually in the event of a disaster. Notification lists normally contain phone numbers and addresses, which may be used in the event that telephones are not operational.

Offsite Location	A location usually at least several hundred yards or more from a facility that could incur a disaster.
Offsite Storage	The process of storing records at a location removed from the normal place of use; i.e., a storage location that is a sufficient distance from the location of normal use to ensure safety from the effects of a disaster. Offsite storage may be used for data, documents, lists, or any other vital records required for recovery from a disaster or for testing contingency plans. A major factor in selection of a satisfactory offsite location is the timeliness and reliability of data retrieval.
Recovery as of	The point in time (with respect to day of week, business cycles, backup schedule, etc.) to which the application needs to be recovered for contingency purposes.
Reciprocal Agreement	When two different organizations mutually agree to back up each other's processing capability in the event that either one incurs a disaster.
Redundant Backup Site	Any of two or more data centers that could (by temporarily decreasing their own workload) assume the processing load of critical applications from another data center.
Subscription Fee	Normally, monthly fees paid for the privilege of using a backup computer hot-site or cold-site, on a first-come, first-served basis.
User Preparedness Reviews	Periodic simulations of disaster recovery conditions for the purpose of evaluating how well an individual or department is prepared to cope with disaster conditions.
Vital Business Functions	Those specific business activities that have a significant impact on cash flow or servicing customer orders

Vital Record	A record that contains information essential to an organization's ability to continue or resume operations or to substantiate rights or obligations. Data files necessary to ensure that critical applications/systems can function are vital records.
Window	The length of time it is expected to take (under emergency conditions, with adequate resources) to restore whatever processing capability was destroyed in a disaster.